

# System Commands, Editors and Utilities

This section covers the following topics:

- Enhanced System Commands
  - Removed System Commands
  - New Utilities
  - Enhanced Editors and Utilities
  - Invoking of Utilities
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## Enhanced System Commands

The following Natural system commands will be enhanced for Natural Version 4.1:

- CATAL
- COMOPT
- LAST
- LIST

### CATAL Command

The CATAL command will provide the following enhancements:

- The error list provided by the CATAL command will be expanded to include additional information on the causes of CATAL processing errors.
- A user exit will be provided which will allow you to change the default settings of the main CATAL screen.

### COMOPT Command

The COMOPT command will provide the following enhancements:

- With the MASK option in a logical condition, a valid year value must be in the range 0000 - 2699; with the MOVE EDITED statement, a valid year value must be in the range 1582 - 2699. Consequently, a year value found valid by a MASK option might lead to an error in a subsequent MOVE EDITED statement. To avoid this situation, the COMOPT command will provide a new option, MASKCME, which will allow you determine whether the year range to be considered valid by the MASK option is to begin with 0000 or 1582.
- With Natural Version 2.3 (sic!), the internal handling of assignments between two format N variables of the *same* length was changed, so as to be consistent with the internal handling of assignments between format N variables of different lengths. One side effect of that change was that when these variables were redefined, this could in some cases lead to different results. With Version 4.1, the COMOPT command will provide a new option, NMOVE22, which will allow you to determine whether the internal handling of assignments between format N variables of the same length is to be done inconsistently as in Version 2.2 or consistently as in all subsequent versions (the latter will be the default). The NMOVE22 option will replace the corresponding special-purpose zaps that were supplied for Versions 2.3 and 3.1.
- The option V22COMP (allow old Version 2.2 syntax), which was introduced with Natural Version 2.3, will continue to be available with Version 4.1.

### LAST Command

"LAST \*" displays a window showing the last 9 system commands that were issued. With Natural 4.1, this window will show the last 20 system commands.

## LIST Command

The LIST command will provide the following enhancements:

- When the LIST command displays a list of objects, these object are in alphabetical order of their names. With Natural 4.1, it will also be possible to sort the list of objects by type, date, etc.
- In the list of objects, it will be possible to mark an object of type class with the command CR to register it, and with the command UR to unregister it.
- In the list of objects, it will be possible to mark an object of type class with a command to have its global unique ID (GUID) displayed.

## Removed System Commands

### SYSBUS

The Natural system command SYSBUS will no longer be available as of Natural Version 4.1. Instead, you use the system command BUS, which performs the same function.

## New Utilities

The following new Natural utility will be provided with Natural Version 4.1:

### SYSOBJH Utility

The new utility SYSOBJH (OBJect Handler) will process objects for the purpose of application distribution. This utility will combine the functionality currently provided by the utilities SYSTRANS and SYSUNLD. The utilities SYSTRANS and SYSUNLD will cease to be available with one of the next Natural releases.

SYSOBJH can be used to unload objects in the source environment to work files, and then load these objects from work files into the target environment. SYSOBJH can process Natural programming objects, resources, DDMs, error messages, Natural-related objects, Natural command processors, external objects, and Adabas FDTs.

Unloading and loading can be performed in internal format (as with the SYSUNLD utility) or in transfer format (as with the SYSTRANS utility).

Work files created with the utilities SYSTRANS and SYSUNLD can also be processed.

Work files created with SYSOBJH in transfer format can be processed by the utility SYSTRANS on all platforms.

## Enhanced Editors and Utilities

The following enhancements will be provided with Natural 4.1:

- Data Area Editor
- SYSBPM
- SYSMAIN
- SYSPARM
- SYSTP
- SYSUNLD

## Data Area Editor

The data area editor will provide the following enhancements:

- The number of possible field levels in a data area will be increased from 9 to 99.
- The maximum length of an alphanumeric variable in a data area will be increased from 253 bytes to 1 GB.
- The maximum length of a binary variable in a data area will be increased from 126 bytes to 1 GB.
- It will be possible to define object handles within a data area.

## SYSBPM Utility

The SYSBPM utility will provide the following enhancements:

- It will be possible to display the contents of the buffer pool in batch mode.
- In batch mode, it will be possible to sort the objects in the buffer pool by various criteria (for example, use count).

## SYSMAIN Utility

The SYSMAIN utility will provide the following enhancement:

- While the function Find Programming Objects is being executed, SYSMAIN displays a window indicating the name of the object being searched. With Natural Version 4.1, this window will also indicate whether the source form or cataloged form of an object is being searched.

## SYSPARM Utility

The SYSPARM utility will provide the following enhancement:

- With Natural 3.1, you can only maintain parameter profiles stored on and applying to the current FNAT system file. With Natural 4.1, it will also be possible to maintain parameter profiles of other FNAT system files.

## SYSTP Utility

The SYSTP utility will provide the following enhancements:

- A new SYSTP function will allow you to cancel Natural user sessions depending on their last-activity date.
- In addition to getting a list of all Natural user sessions, it will be possible to display only the sessions related to one specific user ID or terminal ID.
- It will be possible to control the use of SYSTP functions via Natural Security (in the same way as has been possible for various other Natural utilities).

## SYSUNLD Utility

The SYSUNLD utility will provide the following enhancement:

- If objects are to be unloaded/loaded via Entire Connection and Entire Connection has not been activated, SYSUNLD will automatically issue the terminal command "%+" to activate Entire Connection.
- A user exit will be provided which can be invoked as soon as NATLOAD processing has finished.

## Invoking of Utilities

At present, it is possible to invoke a utility either by entering the utility name as a system command (for example `SYSMAIN`); or by issuing a `LOGON` command to the library containing the utility (for example, `LOGON SYSMAIN`), followed by the command `MENU`.

As of Natural Version 4.1, the only possible way of invoking a utility will be by using the utility name as a system command. This is to provide for a more consistent Natural Security protection of the utilities.